

Work Order ID 142873

Monday, March 14, 2016, 11:27:07 AM

142873

Page 1

Item ID: D2583 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Latch Bracket
 Start Date: ~~4/20/2016~~ 3/28/2016 Start Qty: 35.00 ***35*** Cust Item ID:
 Required Date: ~~4/8/2016~~ 4/26/2016 Req'd Qty: 35.00 ***35*** Customer:
 Reference:

Approvals: Process Plan: MLS Date: MAR 14 2016 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
 Run Start ***NR1***
 Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2583	Rev B								

100 FLOW WATER JET 0.00
100
 Waterjet Memo 0.01
 FLOW CNC Waterjet 1-Cut as per Dwg D2583 Dwg Rev: B Prog Rev: B 2-
 Debur if necessary

110 QC2- Inspect parts off machine FAI/FAIB 0.00
110
 QC Memo 0.01
 Quality Control

120 QC8- Inspect parts - second check 0.00
120
 QC Memo 0.01
 Quality Control

DAS
38
2.89
APR 26 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : ☐									

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 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00			DAS				
130	NC BRAKE				30	34			APR 26 2016
Brake NC	Memo	0.01			9-89				
Brake NC	DeburrForm on CNC Brake as per Dwg D2583								
140		0.00							
140	QC5- Inspect part completeness to step on W/O								
QC	Memo	0.01							
Quality Control									
150		0.00							
150	Chemical Conversion Coat per QSI005 4.1								
HandFinish	Memo	0.01							
Hand Finishing									

36

DAS
38
9-89

APR 28 2016

36x d ul 16/05/02

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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Page 3

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160 155 *160* Powdercoat	<i>powder coat</i> White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum W34371	0.00 PO 32300 0.01							<i>U 16-05-09</i>
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Powder Coating
Outsource

Memo
 START TIME: _____ OVEN TEMPERATURE: _____
 FINISH TIME: _____

170 *170* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.01							<i>36</i> DAS 38 9-89 MAY 11 2016
--	--------------------------------------	------------------	--	--	--	--	--	--	---

180 *180* Packaging Packaging	Identify as per dwg & Stock Location: SX481 Memo	0.00 0.01							<i>36</i> MAY 11 2016 DAS 8 9-89
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165 packaging *Receive + Inspect* *36x SP 16-05-10*

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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

Work Order ID 142873***142873***

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Item ID: D2583

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Latch Bracket

Start Date: 3/28/2016 Start Qty: 35.00

35

Cust Item ID:

Required Date: 4/8/2016 Req'd Qty: 35.00

35

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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190

QC21- Final Inspection - Work Order Release

0.00

190

QC

Memo

0.06

Quality Control

MCJ MAY 11 2016MCJ MAY 11 2016

DQA: _____ Date: _____



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OTHER : ☐									

Picklist Print

Monday, March 14, 2016 11:27:07 AM

Page 1

Work Order ID: 142873

142873

Parent Item: D2583

D2583

Parent Item Name: Latch Bracket

Start Date: 3/28/2016

Required Date: 4/8/2016

Start Qty: 35.00

Required Qty: 35.00

Comments: IPP: C00.11.01 Removed P/O for Powder Coat- in house processDM
IPP: D06.07.21 Waterjet EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M5052H32S.040		Purchased		No		100	sf	53.7519	0.1169	4.306841			

M5052H32S 040

5052-H32 .040 Sheet

02/16/04/26

Location

Loc Qty

Loc Code

MAT023

53.7519262

m129530

4.0984

m132546

4.9535262

m133550

24.7

m1342217

20

i39617

5.5

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mis-labeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : ☐									



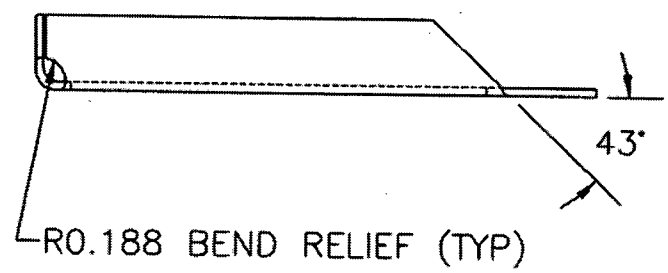
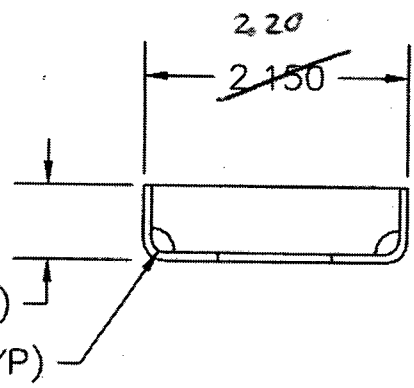
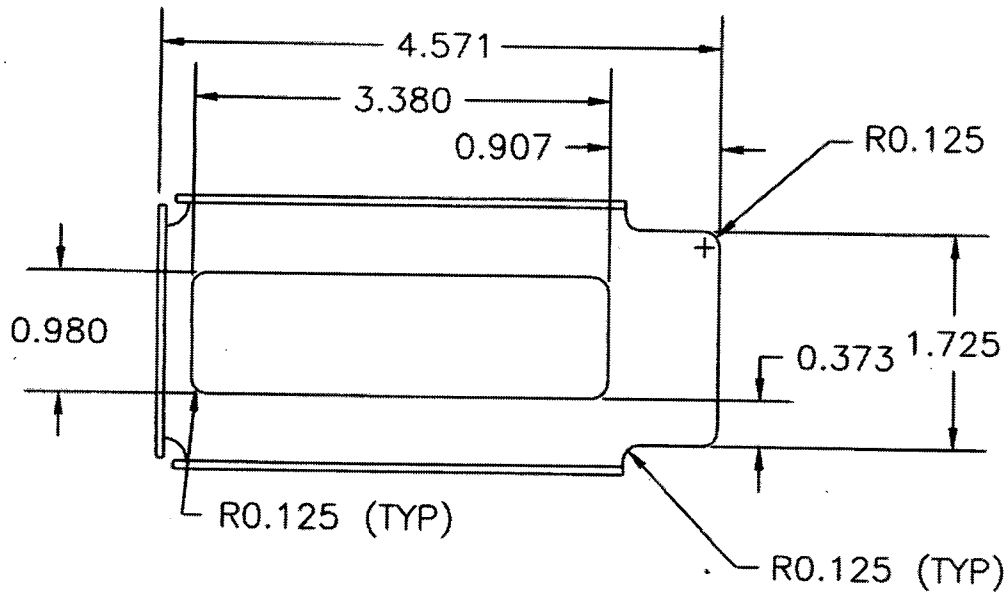
RELEASED
KE 99.02.25

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AGREEMENT
WITHOUT NOTICE
WORK ORDER
NO. 142873 MCL5

16-D3-14

KE 99.02.26

DESIGN	DRAWN BY	DART AEROSPACE LTD
MIKE M.	RF	HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.
CP	KE	D2583
DATE	TITLE	REV. B
99.02.22	LATCH BRACKET	SHEET 1 OF 1
A	96.07.10	NEW ISSUE
B	99.02.22	CHANGE OF FINISH (PER TSR A887)
		SCALE 2:3



MATERIAL: 5052-H32 (QQ-A-250/8) 0.040 THICK
FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO32310**

Purchase Order Date 5/9/2016

PO Print Date 5/10/2016

Page Number 1 of 5

Order From :

VC-ATG001

Ship To : DART AEROSPACE LTD

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 613-446-4544

Buyer

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency CAD

FOB FCA - (Free Carrier)

Ship To Contact

Ship To Phone

Ship Via: VENDOR'S TRUCK

Ship Acct:

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	142873	Powder coat per QSI005	5/11/2016 No 5/11/2016		36.00	\$4.00	\$144.00
Line Total:							\$144.00
2	144557	Powder coat per QSI005	5/11/2016 No 5/11/2016		15.00	\$4.00	\$60.00
Line Total:							\$60.00
3	142917	Powder coat per QSI005	5/11/2016 No 5/11/2016		6.00	\$15.00	\$90.00

PO Instructions: admin fee included in unit price.

Note:

5/10/2016

Generic Quote Calculator - quoted by: Roger L

Line	Part Number	Qty	Requirement 1	Unit Cost	Req 2	Unit Cost		
1	142873	36	powder coated	\$4.00		\$0.00		
2	144557	15	powder coated	\$4.00		\$0.00		
3	142917	6	powder coated	\$15.00		\$0.00		
4	142869	142	powder coated	\$2.00		\$0.00		
5	142456	79	powder coated	\$2.00		\$0.00		
6	143415	20	powder coated	\$4.00		\$0.00		
7	144408	30	powder coated	\$2.00		\$0.00		
8	142908	40	powder coated	\$2.00		\$0.00		
9	144622	9	powder coated	\$3.00		\$0.00		
10	142717	8	powder coated	\$6.00		\$0.00		
11	139536	18	powder coated	\$6.00		\$0.00		
12	142776	22	powder coated	\$6.00		\$0.00		
13	142721	4	powder coated	\$6.00		\$0.00		
14	Adminastration fee	1		\$125.00		\$0.00		
15				\$0.00		\$0.00		
16				\$0.00		\$0.00		
17				\$0.00		\$0.00		
18				\$0.00		\$0.00		
Repeat Job			YES	NO	Black Ano	\$125	Color Ano	\$150.00
Lot Charges			Paint	\$185	Clear Ano	\$125	Hard Ano	\$175
P032310								
COMMENT								
Pricing is based on lot charges when possible								
Anodize Pricing is based on how many parts can be processed per hour - when exce								
Painting Pricing is based on how many parts can be processed per hour - when exce								

SP/6-05-10

Reg 3 Unit Cost TOTAL COST		
	\$0.00	\$124.00
	\$0.00	\$60.00
	\$0.00	\$90.00
	\$0.00	\$284.00
	\$0.00	\$158.00
	\$0.00	\$80.00
	\$0.00	\$60.00
	\$0.00	\$80.00
	\$0.00	\$27.00
	\$0.00	\$48.00
	\$0.00	\$108.00
	\$0.00	\$132.00
	\$0.00	\$24.00
	\$0.00	\$125.00
	\$0.00	\$0.00
	\$0.00	\$0.00
	\$0.00	\$0.00
	\$0.00	\$0.00
	\$0.00	\$1,420.00
Passivate	\$115.00	
Chem Film	\$115.00	
ding lot charges		
ding lot charges		

8016-05-10